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THE FUTURE UNIVERSITY

Ideas and Possibilities

Edited by Ronald Barnett

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7

TOWARDS A NETWORKED UNIVERSITY¹

Nicolas Standaert

Introduction

The birth of a “network society” appears to be a fundamental paradigm shift in the present world. It greatly affects the way society and also education will be organised in the future. As such a whole new world enters into universities: web-thinking, accessibility, internet, linking, nodes, hubs, clusters, hotspots, open source, open access, virtual, free, space, distant learning, are key words of this shift.

A central question emerging from this shift is: What are the new or alternative ways of organising, practising and conceptualising university life in a network society? This question forms the background of the present contribution, which takes the “networked university” as its main focus. Yet, the concept of “network” is taken here as a challenge for universities, rather than an ideal.

In the following pages, I will first trace a short history of the university on the basis of the images of “pyramid,” “pillar” and “web.” Next, I will argue that by paying attention to “displacements between spaces” one can start to frame the University of the Future. As such, a networked university may come into being.

I will raise questions rather than provide answers. This is due to the fact that in a period of transition there are no immediate or ready-made answers. I will mainly use visual images or metaphors. In an article entitled ‘*Metaphoric Imaginings*’: *Re-Visions on the Idea of a University*, Susan Robertson insisted on the importance of metaphors and showed how new metaphors are driving a set of alternatives to education which offer a refreshing change to what was before. As has been proven in practice, images also help more profound reflection on certain essential aspects. I hope in this way to stimulate reflection on the possibilities in front of the university in the twenty-first century, which is the objective of this book.

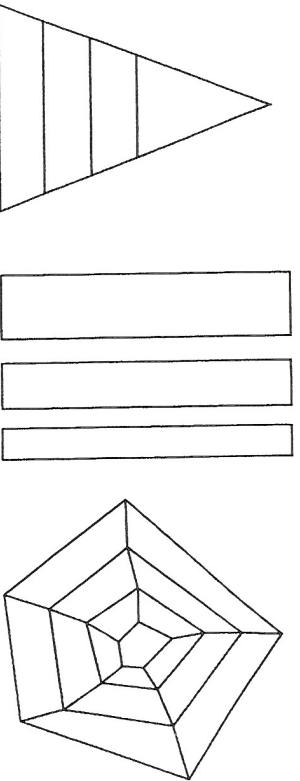
First Metaphor: Pyramid, Pillar and Web—Three Forms of Academic Practice

In the history of the university and of the sciences, there has so far been one major paradigm shift: from renaissance to modernity. This transition occurred gradually and took about two hundred years before resulting in the university structure with which we are acquainted today. One could represent these two structures with the images of "pyramid" and "pillar." The question that is raised today is whether we face a new paradigm shift which could quite radically influence the structure of the university and of scientific practice. The image of the new structure is that of a "web." In order to understand the present situation, it is helpful to look back at the characteristics of the medieval-renaissance and of the modern university.

Pyramid

As an image of the medieval-renaissance university, one can adopt the form of a "pyramid." Universities emerged at a time when both secular and religious society in Europe was organised like a pyramid: a hierarchical society of stratified social classes going from lower levels to the top (king or pope), the ultimate reference points in an all-embracing organisation.

Education was organised in a similar way and one can find this reflected in the classification of sciences. At the bottom were the *artes serviles* (agriculture, surgery, military sciences) which were usually not taught at universities; next came the *artes liberales* consisting of the *trivium* (grammar, rhetoric, dialectics) and the *quadrivium* (geometry, arithmetic, astronomy and music, all different disciplines belonging to mathematics), which were the foundation for the *artes superiores*: (Aristotelian) physics, ethics, metaphysics and theology respectively. Theology, as a speculative science concerning the coherence of things, was considered the "Queen" of the sciences, while the other sciences were her ladies-in-waiting.



Noteworthy is that the acquisition of knowledge was consecutive: one first had to study the *artes liberales* (at least partially) before proceeding to the higher sciences. One also has to underscore the place of mathematics in Aristotelian philosophy: it was an essential preparation to theology.

The social structure of the medieval university was not as unequivocal as the image of a pyramid suggests. The organisation of a university consisted in the fact that it was a *universitas magistrorum et scholarium*, a community of study, a *studium*, a guild of teachers and students, which formed the core of the relationship between teachers and students and which was spatially expressed in the colleges where the students and teachers lived. The *studium* was characterised by principles of autonomy and free research. As it was believed that there was one all-comprising and ultimate truth, any particular truth could be put into question. Pedagogy consisted of a culture of debate (*disputatio*) in which students entered at least once a week in a public debate with each other. Finally one can point out that the *ius ubique docendi* (the right to teach everywhere) broke through the territorial demarcation of a particular university.

Pillar

As a result of developments during the Renaissance and the Enlightenment, a new structure came into place. During this transition, which took circa two hundred years, secular society moved away from the pyramid model towards a pillar (or silo) model, in which different entities no longer belong to one all-embracing structure but manifest themselves separately and independently from each other. This happened in society as a whole: Church and state were separated; independent nation-states were created; and different political parties, trade unions and Christian denominations were established. In academic life, the Enlightenment and the birth of "modern" science radically changed the former pyramidal structure. We are the heirs of this shift and the existing system can still be described in terms of pillars.

One important evolution was the autonomous place that mathematics acquired. This resulted in a conflict with theology which ended with the lady-in-waiting knocking the "Queen" from her throne and becoming queen herself, or even better, all former sciences becoming queens. From that time onwards, they were to a large extent separated from each other, working in a parallel way. Characteristic of these "new" sciences is a specialised way of knowledge acquisition. In the structure of a modern university, theology, philosophy, language and literature, mathematics, physics are all separated from each other in distinct faculties and departments with their own study programme adapted to their own discipline.

The relationship between teachers and students also underwent a significant change: a vertical transmission of knowledge (increasingly specialised) replaced the previous layered acquisition of knowledge: now omniscient teachers could

theology alone: each science has its own (ultimate) truth. The pedagogical consequence was the replacement of the medieval debate by a one-way instruction in many European (mainly Catholic) countries. In terms of territorial demarcation the creation of the nation-state consolidated this pillar system since the international character of the *universitas magistrorum et scholarium* (with its *ius ubique docendi*) was abandoned. Universities were increasingly distinguished on the basis of their national character: empirical in Great Britain, rational in France, idealistic in Germany. Professors only taught in their own national language at their own university.

Web

The thesis of this contribution is that a new transition is taking place, one that is at least as revolutionary, if not more, than the one that led us into modernity. We are quickly moving towards the realisation of the “network society,” which will tremendously influence the way both secular society and education as a whole will be organised in the future (Castells, 1996; Grewal, 2009). This new reality, which mirrors the “internet,” is driven by networks, interdisciplinary connections, real and virtual meeting points and collaborations, both at a local as well as at an international (global) level. This so-called web-model also entails fundamental structural changes from a vertical towards a more horizontal approach and away from the current linear structures towards multidimensional ones.

In the new structure of classification, the sciences still have their own discipline but become organically linked to each other within one space (cf. an ecosystem). This shift already appears in new names: e.g. “life sciences” for medicine, agriculture, health, ecology, pharmacy and biology. Sciences themselves become dynamic spaces (“tissues”). Medicine, for example, had a hierarchical structure of body and head during the Renaissance; in modernity it differentiated various limbs with their own specialisation and students had to get acquainted with them separately. The new programs in medicine now use dynamic terms: “anatomy” becomes “blood and blood cell producing organs”; “histology” becomes “reproduction and development.” Moreover, new forms of acquisition of knowledge consist of not remaining enclosed within one’s own discipline but to search for multidisciplinary, interdisciplinary and even trans-disciplinary links with other sciences. Methodologically speaking, the mode of “analogy” plays an important role: how changes in other sciences can be analogically applied to one’s own discipline. In the structure of a university, the classrooms and separate spaces interconnect and form open networks.

In the relationship between teachers and students, exchange and communication become central and both parties are encouraged to treat each other as equals. In the acquisition of knowledge and its evaluation, the principle of authority is transferred to the peer group. The principle of a single absolute truth is put

principles. In terms of pedagogy, one uses interactive methods and education itself becomes a process (project education, life-long learning). All kinds of internet programs allow new forms of teaching. Territorially speaking, strict demarcations are no longer respected. In Europe, Erasmus-Socrates programs allow students and teachers to establish border crossing networks with colleagues.

If the rough sketch is correct, if indeed we are in a transitional period, then the question is how to deal with this new situation. Yet, this short historical overview has shown that a new system builds on a previous system and that the answers always preserve the essential characteristics of a university.

Second Metaphor: Displacements Between Spaces

In the subsequent section I will review some of the previous questions related to the shift to a network society on the basis of a new set of images. The underlying metaphors are those of “place” and “space.” At first, it can be observed that the notions of “place” and “space” are constitutive of the present-day discourse on universities and education, since in such a context one often uses a topographic vocabulary: e.g. expressions such as teaching *environments*, knowledge *spaces*, the European Higher Education or Research *Area*, a global higher education *landscape*, etc. (Weymans, 2009). At the same time there is also a “crisis of place,” since the importance of place, as an integrative and stabilising force in human experience, is waning. Indeed, our experiences of time, space, work, communication and social relations are increasingly becoming mediated by a series of devices and systems (especially communication and information networks) that diminish the impact and meaning of place (Verschaffel, 2009: 133). This also has its impact on an institution such as a university. When investigating networks from the perspective of place and space, I also want to look at their dynamic aspect by extending these metaphors to the one of “displacement.”

Place, Space and In-between

Terms such as “place” and “space” are not only used by geographers, but also by observers of culture. Michel de Certeau, for instance, made the following distinction between place (*lieu*) and space (*espace*).

A place is an instantaneous configuration of positions. It implies an indication of stability. By contrast, a space exists when one takes into consideration vectors of direction, velocities, and time variables. Thus space is composed of intersections of mobile elements. . . . In short, space is a practised place.

(de Certeau, 1988: 117)

These concepts gain a new significance in a network society, in which, according to Manuel Castells, another important observer of contemporary culture,

"spaces of flows" form part of the network society, i.e. the material organisation of time-sharing social practices that work through flows (exchanges and interaction between social actors) (Castells, 1996: chapter 6, especially 441 and 453). Castells registers the motion, and retains its stable, but static, trace, which he calls "space of places." Yet, the relationships between the "space of flows" and "space of places," between simultaneous globalisation and localisation, are not predetermined in their outcome.

These concepts gain a new significance for universities in this network society. In the story of universities in such a network society, the opposition between "place" and "space" will thus rather refer to two sorts of determinations (following de Certeau): the first, a determination through objects that are ultimately reducible to the being-there, such as the concrete university buildings, labs, teaching halls, offices; the second, a determination through operations by the actions of the subjects involved, the students, the professors, the administrative and technical personnel. Subsequently their stories result in an interplay between places and spaces, which constantly transform places into spaces and spaces into places. This, of course, has always been the case, but in the present-day internet society we often tend to communicate without "place," even within one particular institution. This is because, as pointed out by Bart Verschuif, communication networks entail that the act of speaking is disconnected from a specific place:

The place occupied by the speaker in reality (that is, where his or her body is) has no bearing on the speaking or listening, and does not determine the distance over which the voice carries. Virtual contact and virtual ubiquity result in the body being left behind on the edge of the network, as well as in new types of relations, unconnected to bodily presence, substituting for place-bound relations.

(Verschuif, 2009: 133–134)

Thus the challenge for the university is how and to what extent to "connect" the place of speaking with the place of listening and understanding, even at a local level. But following Castells, there is also the opposition between on the one hand the global and the local: the former is dominated by the space of flows, constituted by circuits of electronic exchanges of e.g. scientific material, databanks, and by nodes and hubs of important academic centres, international conference halls, etc.; the latter is dominated by the space of places, with the concrete local dynamics, such as academic power relations or the teaching or scientific experience in a given local university. Here the challenge for the university is how and to what extent to "link" the local to the global. But in both cases concrete encounters "between" the actors involved are the result of "travelling or walking": they transform places into spaces.

Here I want to introduce the concept of "in-between," because it is at the

earlier image of the web. "In-betweenness" or "the between" draws the attention to one particular aspect of space: instead of focussing on oppositions, on either/or, on Self or Other, the focus moves to the "between," to the search for the "interaction" in space "between" the opposites, to various forms of encounter and conversation ("entre-tien" in French). This notion of in-betweenness shows that many human activities come into being due to the existence and creation of space "between" the Self and the Other, or between the transmitter and the receiver, between the teacher and the student, etc. This space acts both as that which allows an encounter to take place (leading to interaction and communication) and as that which is produced by the encounter as such. Encounters "between" persons result in stories that take the form of a text, image, research project, social network, community. The interaction is considered a permanent tension: between the possibility of understanding (and being understood) and the impossibility of such an understanding, between the local and the global. The interaction therefore causes the partners to readjust, rethink and reformulate ideas of themselves and of others. Thus in-betweenness is the space in which an encounter can take place.

All these concepts may appear rather abstract, but they become concrete when applied to universities, especially since universities in the future will not only be places of knowledge "production" or of "virtual communication" but also spaces of encounters. One challenge for networked universities is to become in new ways such privileged spaces of encounters. This supposes an ethos of a renewed attention to "in-betweenness," to concrete places where the actors (teachers, students, researchers) encounter each other by treating each other as subjects. Many universities are already searching for such alternatives. For sure, many of these alternatives are often rather local and still waiting for a language and opportunity to manifest themselves, but they indicate how universities actively search a place in the network society.

The Networked University as a Space

In an essay in a recent book entitled *Rethinking the University after Bologna*, Ronald Barnett takes the networked university fully into account. Universities have their being in networks, he says, both intentionally and unwittingly. It was always so, but today, networks are a vital part of what it is to be a university in the twenty-first century. "The networked university" has emerged. Thus the question is not whether universities have the choice of becoming networked universities or not, but rather what kind of networked universities they will become. Barnett raises several questions in this regard: What is the ethical basis of these networks? To what ends is the university involved in these networks? Is it engaging thus for its own ends? Or is it reaching out to others—other institutions and organisations—to help to bring about a better world?

In the next series of questions Barnett raises, the metaphor of "space" is central. What spaces, what new networks might universities open out and be part

of... What spaces... are now available to the university? Are there other kinds of spaces that will encourage forward an alternative set of knowledge interests? In response to such questions, "the ecological university," as he terms it, prompts itself.

The ecological is none other than a university that takes its networks and its networking seriously. That is to say, it understands that it lives amid networks and that, therefore, the responsibility arises as to which networks are to claim its primary allegiance. [...] The networked university becomes the ecological university when it intends deliberately not merely to safeguard the public realm but actively to enhance it. [...] This, then, is a university that has a care for the wider society, for the unequal life chances of its people, and for the severe challenges that society faces. [...] The ecological university, accordingly, may also be termed... "the public university."

(Barnett, 2009a: 114–115)

The concepts of "place," "space" and "public" occupy an important position in the article by Jan Masschelein and Maarten Simons in the same book (Barnett et al., 2009). They first observe that present-day universities are places that permanently and relentlessly *mobilise* researchers, lecturers, and students. Through the well-developed systems of quality control, excellence financing, rankings, etc. they are all asked to mobilise their intellectual (human) capital. Next, they plead for a "world-university": by the space called "the world" they mean the place and time where things are made public. Paradoxically the proposal for a world-university is a proposal to slow down the construction of a common world, to create a space (one amongst others) for hesitation. Their proposal aims precisely to disrupt this mobilisation and thus requires a different *ethos*. And they continue:

One could think, then, of the world-university as the place where we are not mobilised, but slowed down and provoked to think, and where this provocation finds (its) place (and the university as this place), the place where research is put on the table (made present) and its protection (by methods and theories) undone.

(Masschelein & Simons, 2009b)

In their eyes, the world-university is, too, the place where teaching is stripped of its protections (by teaching methods, didactic devices) and is no longer instruction but becomes what they like to call lecturing, i.e.

precisely not teaching a lesson but making things public, reading them before an audience, exposing them (and being in the presence of), making them speak as it were, giving them a presence that calls a thinking pub-

known, but making them present and inviting us to explore new ways of relating to them (i.e. to the matter and to ourselves).

(Masschelein & Simons, 2009b: 95–97)

Despite the differences between the approaches of these authors, they share the conviction that networked universities will be public spaces with attention to the world, to hesitation, to fragility, to the uncertain and unknown.

In this context one may draw further attention to the metaphor of "displacement." While the images of pyramid and pillars are linked to "stability" or minimal mobility within the pyramid or pillar, the images of web, space and place are associated with mobility: circulating from one hub to another, or better "between" the nodes. "Displacement" means that one moves from one (physical) place to another, thus creating new spaces for encounter. Yet, displacement not only takes place through one's own *self* initiative; it also happens when one is moved by initiatives by *others*. That is why we are often reactively "displaced," for instance by metaphors, rather than that we actively displace ourselves. The search for new forms of university life supposes this kind of displacement. These deregulate, but next allow reconfiguration. In this context, one can discern different types of displacements: mental and physical, though they most often operate together.

Mental Displacements

The landscape of classification of sciences (Standaert, 2009: 46–48) presents a challenge that a knowledge culture addresses to the university and to broader society: the acknowledgment of, and respect for, different approaches to knowledge, its development and its type of evaluation. Therefore the variety of sciences and disciplines contains an invitation to a first—mental—"displacement" within the landscape of knowledge. Can we, in our own research and our evaluation of it, move to the places occupied by other sciences? Even more important is whether we can allow ourselves to be displaced. Such a displacement may lead to new discoveries. The confrontation with other sciences may also lead to the discovery of the space where we lose control over what we think we master. Such an in-between space is present in any science. Indeed, the drive for knowledge has its roots precisely in what we do *not* know (Vest, 2005: 99). The more we know, the more we want to know, but a displacement within the field of knowledge confronts us with vulnerability and lack of control.

At present there is a tendency towards strengthening the pillars, even within the classification of sciences, instead of moving towards nodes between them, illustrated by the image of the web where the sciences are interlinked with each other. I am of the opinion that the major challenge is to search for new ways as to how different disciplines can meet each other: in other words, how can one create new nodes in the web of sciences? This call of displacement is not a return to the pre-modern system, in which one could cover several sciences, but a

challenge of a different kind. The main reason is that, in contrast with the Renaissance period, modern sciences have reached such a high degree of specialisation that it is no longer possible to cover all sciences. Thus the question becomes, given that specialisation is inevitable for research, how to prevent specialisation in one field from enclosing itself into itself, which is entrenching the pillar system. Is the simple accumulation of various specialisations the only alternative? Or is the challenge to search for ways of combining in-depth knowledge of one field with a more comprehensive view that takes in sciences beyond one's own? This problem still needs to be explored, but it may require a kind of "horizon" perspective: this means the more in-depth mastering of one's field should not lead to a further confinement to one's field, but rather to a greater perspective on other fields. In a time of fragmentation there is need of rediscovering the whole. Thus, academic research and teaching will be more networked, if one's own specialised research is "linked" to a wider context, a new type of *universitas*.

This is also true for the polarisation between the so-called measurable and hermeneutic sciences. In the transition between renaissance and modernity, "measurable" sciences, which express and process their data arithmetically and statistically, came to be opposed to sciences that try to understand (hermeneutically), that search for meaning, or that at times express a judgment of value about what is true, good or beautiful, though the latter are at the foundation of what the university is (Illich, 2010). The measurable sciences are cumulative, since any invention or discovery forms the basis for the next scientific development. They tend to univocality: one language (English) and one exclusive method (mathematics/statistics). The hermeneutic sciences are cyclical because they re-read and reinterpret previous knowledge over and over. They are multivocal: they avail themselves of and publish in different languages and employ a variety of methods. The former seek to "explain" (*erklären*) phenomena in terms of cause and effect; in contrast, the latter seek to "understand" (*verstehen*) in terms of the relations of the part to the whole (as pointed out by Wilhelm Dilthey). Yet today, at least in the dominant discourse, a break is established between the two, with the measurable sciences (based on "counting" or "reckoning") almost excluding the other (based on "recounting" or "narrating"). I am of the opinion that the major challenge today is to search for new ways how the two can meet each other: in other words, how can one create new nodes at the centre of the axis of knowledge? Here the issue is also whether language should not perform a new role, which is how "counting and recounting" could meet each other and forge a new narrative? In fact the whole operation of "counting" not only requires a "recounting" but also finds its origin in a broader narrative: it is only when this link is established that the results can be accounted for and estimated. As such they will become more universal and public.

In the meeting of "reckoning" and "narrating," of "measurable" and "hermeneutic" sciences at this level of language, analogy and metaphor will play an important part as nodes or contact points. In scientific discoveries, metaphors

make us travel and be displaced from one scientific discipline to another. In this respect Alan Lightman (2005), who is both physicist and novelist, points out that one distinction that can be made between physicists and novelists, and between the scientific and artistic communities in general, is what he calls "naming." Roughly speaking, the scientist tries to name things and the artist tries to avoid naming things. And he goes on to show (with examples from Isaac Newton, James Clerk Maxwell, and Georges Lemaitre), that analogies and metaphors are aids to scientific discovery.

In doing science, even though words and equations are used with the intention of having precise meanings, it is almost impossible not to reason by physical analogy, not to form mental pictures, not to imagine balls bouncing and pendulums swinging. Metaphor is part of the process of science.

(Lightman, 2005: 50)

Likewise analogies with biomedical or exact sciences help processes of understanding in hermeneutical sciences. By such metaphorical displacements encounters "between" sciences are established. The use of imagination also leads to a greater universality, thus *universitas*. Very often academics see their problems or solutions as absolute, but by confronting them with problems and solutions in other places, they are put in a universal perspective.

Physical Displacements

At present the web-like structuring of universities still needs to be invented, since most universities are still organised into faculties and disciplinary departments that reflect the pillar system; and the financing, recruitment (of staff and students) is organised likewise. It is not yet clear what a more network-like structuring of universities should look like. In the transition period there is probably need for "nomadic" practices within a university.

One can observe that the most creative search is situated in these nomadic practices. Stef Langmans, a student in pedagogy at the K.U. Leuven, for instance, made a survey of such alternative practices which he found on the web and brought them together under the title "publiciversity." They are oriented towards the university space and its "public" role. His blog devoted to this topic brings together 175 examples of academic initiatives intended to create public practices (<http://publiciversity.wordpress.com/>). These examples were brought together on the basis of keywords such as "free, open, public, mobile, nomad, informal, invisible, interdisciplinary," which indicate the movement between places, and arranged under the headings "art & social, educational, knowledge system, publishing & archiving, research, student, organisational." These examples reveal that at least the following aspects enter into play in the reconfiguration of academic practice in a network society: *space* (Is it concrete,

virtual, mobile?), *access* (Is the public gaining access to the organisation or is the organisation stepping towards the public? Is it focused on an elite or a broad public?), *values* (Are activities oriented towards excellence and submitted to quality-control? Is any university rank required for teaching? Is research fundamental or society oriented?), *outcome* (Do the institutions provide a diploma or is knowledge spread for its own sake? Are there any (public) knowledge repositories?), *interrelation* (What is the level of cooperation, interactivity in workshops, internet-forums, community service?).

Langmans' survey shows a large variety of displacements and nomadic practices by which institutions and individuals look for new ways of organising, practising and conceptualising university life. They search for alternatives in different directions: new practices inside the university as well as practices outside the institution and at its edges, which might inspire university institutions. They point at examples that created new links, that made students work together in a transdisciplinary way, that have made research publicly accessible, that opened spaces in which creativity could bloom or where researchers could meet each other not only to count but also to recount. There are also many institutional examples in which displacement is at the forefront: *Barefoot University* works with the marginalised, impoverished and poor in South Africa (<http://www.barefoot-university.org.za/>); *Communiversity* is an adult education program taught by volunteer teachers of the University of Missouri, Kansas City (<http://www.umkc.edu/commu/>); *Campus for Peace* of the Universitat Oberta de Catalunya is at the service of NGOs (<http://www.campusforpeace.org/>). This search is open-ended, many initiatives are experimental and their outcome is unpredictable.

One concrete example of education through physical displacements, is the course on "world-forming education" organised by Jan Masschelein at K.U. Leuven. During the last several years, he travelled with students to post-conflict cities (Sarajevo, Belgrade, Tirana, Bucharest, Kinshasa) and non-tourist megacities in China (Shenzhen, Chongqing) for 10 to 14 days. Students were asked to walk day and night along arbitrary lines drawn on city maps: lines starting and leading nowhere particularly, lines without plan, crossing at random neighbourhoods, buildings, or areas. Everyday, during long talks, he asked each of them very simple questions: What have you seen? What have you heard? What do you think about it? What do you make of it? At the end of the travel they had to present in the streets somewhere in the city their "look at the city." He calls these travels experiments in "e-ducating the gaze": it is not getting at a liberated or critical view, but about liberating or displacing our view. Walking, in his eyes, is the physical activity of displacing one's gaze (i.e. leaving one's position, one's ex-position) along an arbitrary line, a trajectory that at the same time exists (and is recaptured) and is paved anew, a way for new perspectives, and so not leading to somewhere given before, but somewhere without a destination or familiar kind of orientation. This opening our eyes, is the opening of an existential space, a space for practical free-

This walking through cities raises the question of the territorial demarcation of a university, which is directly related to its place, in the physical and stable sense. The changes of the network society are obvious, since many places are transformed into virtual spaces (through internet), that connect subjects without having to change places. They enhance virtual displacements. But, as Jean-Claude Guédon points out, networks also grow as the physical displacement (mobility) increases: students, researchers and professors move now increasingly from one place to another to build new networks. The obvious advantage of this networked, connected perspective is that it immediately transcends traditional boundaries, be they political, institutional or based on disciplines. He concludes: "As space would grow as networks grow, it would also bring us back to de Certeau's notion of a space that develops even as the individual walks and interprets" (Guédon, 2009: 72). Yet, this transcendence raises a new tension: that is the one of local embedding, to which is related the physical place of universities.

The present-day physical emplacement of European universities and its architecture are built on a tradition, which is to a large extent the reflection of the pillar-system of the universities: buildings are organised according to different disciplines, usually each discipline has its own building or floor within a building. The space of a networked university still has to be invented. On the one hand, the university as institution needs architecture, as pointed out by Bart Verschaffel:

an actual, real space, and bodies who feel they are really in the game because they are in the building. [...] These institutional spaces provide—as long as they last—unique conditions to talk and think about what is happening "outside", in the streets, the new virtual communication spaces, and the world.

(Verschaffel, 2009: 145–146)

On the other hand, there is need for a new architecture, where buildings are interconnected, and hubs and meeting places are created across disciplines. There is a need for spaces where researchers belonging to different sciences can encounter each other and exchange forms of "counting and recounting." Universities should make a fresh effort to create new, mobile "spaces of encounter." For instance, one could create new meeting centres to which scholars could be invited to be displaced for the duration of one semester. All participants would have their office and administrative support in that place, while continuing their normal academic activities of teaching and research. However, they could try to share free time together: informal meetings and also formal seminars. In these seminars they could explain to the other members (who are not specialised in their own field) in a comprehensible way their research and the methodology required for it. This might be a creative way of travelling through the landscape of knowledge. Thus by moving to new places within a given university, participants would create new spaces of interaction. It is to be expected that this is a way in which new networks are likely to be formed, which possibly might result in new insights.

Conclusion: Open Space

Central in this chapter has been the use of metaphors. They are mobile forces of imagination that displace us and that make educational creativity and scientific development possible. Thus metaphors also help to stimulate reflection on the possibilities facing the university in the twenty-first century. In contrast with the present-day tendency that expects concrete results on the basis of preset objectives and clear benchmarks, also in universities, the image of a networked university still needs to be discovered, by slowing down, by being hesitant, by becoming attentive to how the network society presents itself. The image of the web shows the open space at the centre of any web: it is the space of the *non-dit* of our hopes, desires and drives. It is the space of what is uncertain, vulnerable, uncontrollable, or incomprehensible that is the mainspring of human action. It is the in-between-ness that makes people to encounter each other and that may constitute an essential part in the search towards a networked university.

Note

- ¹ This is a strongly revised version of my article "Pyramid, Pillar and Web: Questions for Academic Life Raised by the Network Society." I thank Ron Barnett, Carine Defoort and Wim Weymans for their comments on earlier versions of this text.